

IN THE CLAIMS

Amend the claims as follows:

1-27. (canceled).

28. (currently amended) A system for evaluating heart failure within a patient using an implantable medical device, comprising:

a ventricular end-diastolic volume (EDV) detection unit; and

a ventricular EDV-based heart failure evaluation unit operative to detect the progression of heart failure within the patient based on changes in ventricular EDV;

wherein the system is coupled to at least two electrodes for implant within a patient's ventricles and wherein the EDV detection unit is adapted to:

identify a baseline point in time within each of a plurality of cardiac ~~[[cycle]]~~ cycles for detecting the ~~[[value]]~~ values representative of ventricular EDV;

detect a signal representative of the impedance between the two ventricular electrodes at ~~[[the]]~~ each baseline point in time; and

determine a baseline ventricular EDV value based on the impedance signal detected at ~~[[the]]~~ each baseline point in time; and

wherein the baseline point within a cardiac cycle is identified by tracking a pre-ejection interval and then selecting a point within the pre-ejection interval.

29. (original) The system of claim 28 and further comprising:

a heart failure therapy controller that is responsive to detection of a progression of heart failure by the heart failure evaluation unit to adjust one or more operating parameters.

30. (original) The system of claim 28 and further comprising:

an implantable drug pump in communication with the heart failure evaluation unit and responsive to detection of a progression of heart failure by the heart failure evaluation unit to administer a drug.

31. (original) The system of claim 28 and further comprising:

an implantable heart failure warning device in communication with the heart failure evaluation unit and responsive to detection of a progression of heart failure by the heart failure evaluation unit to generate a warning.

32. (currently amended) A system for detecting the progression of heart failure within a patient using an implantable medical device, comprising:

means for determining ventricular end-diastolic volume (EDV) values; and

means for tracking the progression of heart failure, if any, within the patient based on the values representative of ventricular EDV;

wherein the means for determining ventricular EDV values comprises:

means for identifying a baseline point in time within each of a plurality of cardiac [[cycle]] cycles for detecting the [[value]] values representative of ventricular EDV;

means for detecting a signal representative of the impedance between the two ventricular electrodes at [[the]] each baseline point in time; and

means for [[determine a]] determining the baseline ventricular EDV [[value]] values based on the impedance signal detected at [[the]] each baseline point in time; and

wherein the baseline point within a cardiac cycle is identified by tracking a pre-ejection interval and then selecting a point within the pre-ejection interval.

33. (original) The system of claim 32 and further comprising:  
means for controlling delivery of therapy based on progression of heart failure.

34. (original) The system of claim 32 and further comprising:  
means for administering a drug based on progression of heart failure.

35. (original) The system of claim 32 and further comprising:  
means for generating a warning based on progression of heart failure.